Serial No.: Not Yet Known

Filed : Herewith

Page 12

INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. §1.56, applicants would like to direct the Examiner's attention to the following documents which are listed on Form PTO-1449 (Exhibit B) and are also listed below.

This Information Disclosure Statement is being submitted pursuant to 37 C.F.R. §1.97(b)(3) before the mailing of a first Office Action on the merits. Thus, this Information Disclosure Statement should be entered and considered.

The above-identified application claims benefit under 35 U.S.C. \$120 of Serial No. 10/000,280 (U.S. Application Publication No. 2003-0045536-A1), filed November 30, 2001. Copies of the documents listed below as references 1-46 and 50-110 have previously been submitted to, or cited by the U.S. Patent Office in connection with Serial No. 10/000,280. Therefore, in accordance with 37 C.F.R. §1.98(d), copies of the previously submitted documents are not provided. A copy of reference 48 is not provided because the disclosure of this reference is substantively cumulative with the disclosure of the reference listed below as item 47, a copy of which is provided herewith. A copy of each of the references listed below as items 47 and 49 is attached hereto as **Exhibits 1** and **2**.

Pursuant to 37 C.F.R. 1.98(a), applicants have listed on Form PTO-1449 copending U.S. applications and have listed them below

Serial No.: Not Yet Known

Filed : Herewith

Page 13

as references 102-110. Applicants also enclose copies of the claims as allowed or as currently pending in each of the copending U.S. applications as **Exhibits 3-10**. The claims for U.S. Application No. 10/010,092 are the same as those originally filed in that application. Consequently, a copy of the claims is not enclosed.

Applicants also disclose to the Examiner that they are filing concurrently with the subject application another continuation application of U.S. Serial No. 10/000,280, which will bear attorney Docket No. "60390-IA". Applicants at this time do not have the Serial No. for the concurrently filed continuation application, but respectfully request that the Examiner consider the concurrently filed continuation application and enter it on a Notice of References Cited which will be forwarded to applicants.

For the convenience of the Examiner, applicants point out that references 1, 24, 25, 32, 41, 42, 51-57, 74, 77, 79, 84, 85, 95 and 97 were cited in a corresponding PCT International Search Report for PCT International Publication No. WO 99/62518; reference 2 was cited in a corresponding PCT International Search Report for PCT International Publication No. WO 01/39777; references 68 and 73 were cited by the U.S. Patent Office in connection with U.S. Application No. 09/454,075; and references 35 and 83 were cited in the corresponding PCT Preliminary Examination Report for PCT International Publication No. WO 99/62518. A copy of the aforementioned search reports can be

Serial No.: Not Yet Known

Filed : Herewith

Page 14

found with the copy of the PCT International Publication No. WO 99/62518 submitted in connection with U.S. Serial No. 10/000,280, and with the copy of PCT International Publication No. WO 01/39777 submitted as Exhibit 1. A copy of the PCT Preliminary Examination Report for PCT International Publication No. WO 99/62518 is attached hereto as **Exhibit C**.

- U.S. Patent No. 3,037,980, issued June 5, 1962, Hitchings,
 G. H. et al.;
- 2. U.S. Patent No. 3,910,913, issued October 7, 1975, Kim, et al.;
- 3. U.S. Patent No. 5,208,240, issued May 4, 1993, Peet et al.;
- U.S. Patent No. 5,409,930, issued April 25, 1995, Spada, A.
 P. et al.;
- 5. U.S. Patent No. 5,516,894, issued May 14, 1996, Reppert, S. M.;
- U.S. Patent No. 5,580,870, issued December 3, 1996, Barker,
 A. J. et al.;
- 7. U.S. Patent No. 5,639,913, issued June 17, 1997, Lidor et al.;
- 8. U.S. Patent No. 5,646,156, issued July 8, 1997, Jacobson,

Serial No.: Not Yet Known

Filed : Herewith

Page 15

et al.;

- U.S. Patent No. 5,681,941, issued October 28, 1997, Cook,
 P. D. et al.;
- U.S. Patent No. 5,710,158, issued January 20, 1998, Myers,
 M. R. et al.;
- U.S. Patent No. 5,714,493, issued February 3, 1998, Myers,
 M. R. et al.;
- U.S. Patent No. 5,721,237, issued February 24, 1998, Myers,
 M. R. et al.;
- 13. U.S. Patent No. 5,747,498, issued May 5, 1998, Schnur, R.
 C. et al.;
- 14. U.S. Patent No. 5,780,450, issued July 14, 1998, Shade, D. L.;
- 15. U.S. Patent No. 5,780,481, issued July 14, 1998, Jacobson, et al.;
- 16. U.S. Patent No. 5,834,609, issued November 10, 1998, Horne,
 D. A. et al.;
- 17. U.S. Patent No. 5,877,218, issued March 2, 1999, Herzig et al.;

Serial No.: Not Yet Known

Filed : Herewith

- 18. U.S. Patent No. 5,877,221, issued March 2, 1999, Cohen et al.;
- 19. U.S. Patent No. 5,880,159, issued March 9, 1999, Herzig et al.;
- 20. U.S. Patent No. 5,914,349, issued June 22, 1999, Cohen et al.;
- 21. U.S. Patent No. 5,962,458, issued October 5, 1999, Lohmann, et al.;
- 22. U.S. Patent No. 5,994,408, issued November 30, 1999, Cohen et al.;
- 23. U.S. Patent No. 6,103,899, issued August 15, 2000, Horne, D. A. et al.;
- 24. PCT International Publication No. WO 93/20078, published October 14, 1993;
- 25. PCT International Publication No. WO 94/13676, published June 23, 1994;
- 26. PCT International Publication No. WO 94/17090, published August 4, 1994;

Serial No.: Not Yet Known

Filed : Herewith

- 27. PCT International Publication No. WO 94/19349, published September 1, 1994;
- 28. PCT International Publication No. WO 94/24136, published October 27, 1994;
- 29. PCT International Publication No. WO 95/11681, published May 4, 1995;
- 30. PCT International Publication No. WO 95/18617, published July 13, 1995;
- 31. PCT International Publication No. WO 95/19774, published July 27, 1995;
- 32. PCT International Publication No. WO 95/19970, published July 27, 1995;
- 33. PCT International Publication No. WO 95/20597, published August 3, 1995;
- 34. PCT International Publication No. WO 96/19478, published June 27, 1996;
- 35. PCT International Publication No. WO 97/02266, published January 23, 1997;
- 36. PCT International Publication No. WO 97/05138, published

Serial No.: Not Yet Known

Filed : Herewith

Page 18

February 13, 1997;

- 37. PCT International Publication No. WO 97/33879, published September 18, 1997;
- 38. PCT International Publication No. WO 98/07726, published February 26, 1998;
- 39. PCT International Publication No. WO 98/08382, published March 5, 1998;
- 40. PCT International Publication No. WO 98/22465, published May 28, 1998;
- 41. PCT International Publication No. WO 98/29397, published July 9, 1998;
- 42. PCT International Publication No. WO 98/57651, published December 23, 1998;
- 43. PCT International Publication No. WO 99/06053, published February 11, 1999;
- 44. PCT International Publication No. WO 99/33815, published July 8, 1999;
- 45. PCT International Publication No. WO 99/42093, published August 26, 1999;

Serial No.: Not Yet Known

Filed : Herewith

- 46. PCT International Publication No. WO 99/62518, published December 9, 1999;
- 47. PCT International Publication No. WO 01/39777, published June 7, 2001 (Exhibit 1);
- 48. PCT International Publication No. WO 02/057267, published July 25, 2002;
- 49. PCT International Publication No. WO 03/048120, published June 12, 2003 (Exhibit 2);
- 50. European Patent Application No. EP 322 242 A2, published June 28, 1989;
- 51. European Patent Application No. EP 0 514 540 A1, published November 25, 1992;
- 52. European Patent Application No. EP 0 682 027 A1, published November 15, 1995;
- 53. European Patent Application No. EP 0 729 758 A2, published September 4, 1996;
- 54. European Patent Application No. EP 0 773 023 A1, published May 14, 1997;

Serial No.: Not Yet Known

Filed : Herewith

- 55. Great Britain Patent Application No. 915,303, published January 9, 1963;
- 56. German Patent Application No. DE 31 45 287 A1, published May 19, 1993;
- 57. Indian Application No. 157280, published February 22, 1986;
- 58. Japanese Patent Application No. JP 09-291089, published May 11, 1999;
- 59. Abbracchio M., et al., (1999) "Brain Adenosine Receptors as Targets for Therapeutic Intervention in Neurodegenerative Diseases", Ann. NY. Acad. Sci, 890: 79-92;
- 60. Banker, G.S. et al., <u>Modern Pharmaceutics</u>, 3rd ed., Marcel Dekker, New York, 1996, page 596;
- 61. Barrett, R.J. (1996) "Realizing the Potential of Adenosine-Receptor-Based Therapeutics" Proc. West. Pharmacol. Soc.39: 61-66;
- 62. Barrett, R.J. et al., "N-0861 selectively antagonizes adenosine A1 receptors in vivo" European J. Pharmacology (1992) 216: 9-16;
- 63. Brand A., et al., (2001) "Adenosine A1 and A3 receptors mediate inhibition of synaptic transmission in rat cortical

Serial No.: Not Yet Known

Filed : Herewith

Page 21

neurons", Neuropharmacology, 40: 85-95;

- 64. Bundy, G.L. et al. (1995) "Synthesis of Novel 2,4-Diaminopyrrolo-[2,3-d]pyrimidines with Antioxidant, Neuroprotective, and Antiasthma Activity" J. Med. Chem. 38: 4161-4163;
- 65. Campbell, R.M. et al., "Selective A₁-Adenosine Receptor Antagonists Identified Using Yeast Saccharomyces Cerevisiae Functional Assays" <u>Bioorg. & Med. Chem. Lett.</u> (1999) 9(16): 2413-2418;
- 66. Chen, Y. L., et al., "Synthesis and Oral Efficacy of a 4(Butylethylamino)pyrrolo[2,3-d]pyrimidine: A Centrally
 Active Corticotropin-Releasing Factor₁ Receptor Antagonist",
 (1997) J. Med. Chem., 40: 1749-1754;
- 67. Cummings, J. et al., "Antagonism of the Cardiodepressant Effects of Adenosine during Acute Hypoxia" <u>Academic</u> Emergency Medicine (2000), 7(8): 618-624;
- 68. DeNinno, M.P. in <u>Annual Reports in Medicinal Chemistry</u>, Vol. 33, (Academic Press: San Diego, 1998), pp. 111-120;
- 69. Dhainaut, A. et al., "New Purines and Purine Analogs as Modulators of Multidrug Resistance" J. Med. Chem. (1996) 39: 4099-4108;

Serial No.: Not Yet Known

Filed : Herewith

- 70. Dooley, M.J. et al., "Theoretical Structure-Activity Studies of Adenosine Al Ligands: Requirements for Receptor Affinity" Bioorg. Med. Chem. (1996), 4(6): 923-934;
- 71. Feoktistove, I. et al., (1998) "Adenosine A_{2B} receptors: a novel therapeutic target in asthma?", TiPS 19: 148-153;
- 72. Gao, E. et al., "Adenosine Al Receptor Antagonist Prolongs Survival in the Hypoxic Rat" J. Cardiovascular Pharm. (2001) 38: 384-394;
- 73. Hart, H. et al., Organic Chemistry, A Short Course, (Houghton Mifflin: 1995), p. 121;
- 74. Iwamura, H. et al. (1996) "Quantitative Aspects of the Receptor Binding of Cytokinin Agonists and Antagonists" J. Med. Chem., 26: 838-844;
- 75. Jacobson K.A., et al., (1998) "Adenosine A3 receptors: novel ligands and paradoxical effects", TiPS, 19:184-191;
- 76. Jacobson K.A., et al., (1997) "Pharmacological Characterization of Novel A3 Adenosine Receptor-selective Antagonists", Neuropharmacology, 36 (9): 1157-1165;
- 77. Jorgensen, A. et al. (1985) "Synthesis of 7H-Pyrrolo[2,3- d]pyrimidin-4-amines" Liebigs, Ann. Chem., Pages 142-148;

Serial No.: Not Yet Known

Filed : Herewith

- 78. Kaiser, S.M. and R.J. Quinn (1999) "Adenosine receptors as potential therapeutic targets" <u>Drug Discovery Today</u> 4(12): 542-551;
- 79. Kiichiro, K. et al. "Synthesis of pyrazinecarboxylic acid derivs. (II) derivs. of 3-aminopyrazinecarboxylic acid" (1961) Yakugaku Zasshi 81: 1650-1653;
- 80. Lee T., et al., (1999) "Protective effects of renal ischemic preconditioning and adenosine pretreatment: role of A1 and A3 receptors", 72nd Scientific Sessions of the American Heart Association, Atlanta, GA, p.197;
- 81. Lee T., et al., (2000) "Protective effects of renal ischemic preconditioning and adenosine pretreatment: role of A1 and A3 receptors", Am. J. Physiol. Renal Physiol., 278: F380-F387;
- 82. Marx, D. et al. (2001) "Therapy of Bronchial Asthma with Adenosine Receptor Agonists or Antagonists" <u>Drug News</u>
 Perspect. 14(2): 89-100;
- 83. Mautner, H.G., (1961) "Potential Deoxyribonucleic Acid Cross-linking Agents. 8,8'-Bispurines", J. Org. Chem. 26(6):1914-1917;
- 84. Muller, C. E. et al. (1990) "7-Deaza-2-phenyladenines: Structure-Activity Relationships of Potent Al Selective

Serial No.: Not Yet Known

Filed : Herewith

Page 24

Adenosine Receptor Antagonists" J. Med. Chem., 33: 2822-2828;

- 85. Muller, C.E. et al. (1996) "Chiral Pyrrolo[2,3-d]pyrimidine and Pyrimido[4,5-b]indole Derivatives: Structure-Activity Relationships of Potent, Highly Stereoselective A₁-Adenosine Receptor Antagonists" J. Med. Chem., 39: 2482-2491;
- 86. Muller, C. E. and Stein, B. (1996) "Adenosine Receptor Antagonists: Structures and Potential Therapeutic Applications", Current Pharmaceutical Design, 2: 501-530;
- 87. Muller, C. E.(1997) "A₁-Adenosine Receptor Antagonists", Exp. Opin. Ther. Patents 7(5): 419-440;
- 88. Muller, C. E., et al., (1997) "Synthesis and Structure-Activity Relationships of 3,7-Dimethyl-1-propargylxanthine Derivatives, A_{2A}-Selective Adenosine Receptor Antagonists", J. Med. Chem., 40: 4396-4405;
- 89. Nishiyama, A. et al., "Adenosine Al Receptor Antagonist KW-3902 Prevents Hypoxia-Induced Renal Vasoconstriction" J. Pharm. Exp. Ther. (1999), 291: 988-993;
- 90. Nyce, J. W. and Metzger, J.W., (1997) "DNA antisense therapy for asthma in an animal model", Nature, 385: 721-725;

Serial No.: Not Yet Known

Filed : Herewith

- 91. Pichler, H. et al. "Synthese von 7-unsubstituierten 7H-Pyrrolo[2,3-d] pyrimidinen", (1986) <u>Liebigs Ann. Chemie.</u>, 9: 1485-1505;
- 92. Seela, F., and Lupke, U., "Mannich-Reaktion am 2-Amino-3,7-dihydropyrrolo [2,3-d] pyrimidin-4-on, dem Chromophor des Ribonucleosids "Q" (1977) Chem. Ber. 110: 1462-1469;
- 93. Shan, Daxian et al., <u>J. Pharmaceutical Sci.</u>, (1997) 86:765-767;
- 94. Szkotak, A.J. et al., "Regulation of K⁺ current in human airway epithelial cells by exogenous and autocrine adenosine" Am. J. Physiol. Cell Physiol. (2001), 281: C1991-C2002;
- 95. Venugopalan, B. et al. (1998) "Synthesis of 6,7-Dimethoxypyrimido[4,5-b]-indoles as Potential Antihypertensive Agents" J. Heterocyclic Chem., 25: 1633-1639;
- 96. Welch, W.J. "Adenosine type 1 receptor antagonists in fluid retaining disorders" Expert Opin. Investig. Drugs (2002), 11(11): 1553-1562;
- 97. West, R. A. et al. (1961) "2-Alkyl(aryl)-and 2,7-Dimethyl-4-substituted Aminopyrrolo[2,3-d]pyrimidines" J. Org. Chem., 26: 3809-3812;

Serial No.: Not Yet Known

Filed : Herewith

- 98. Williams, E. F. et al., "Nucleoside transport sites in a cultured human retinal cell line established by SV-40 T antigen gene", (1994) Current Eye Research, 13: 109-118;
- 99. Wolff, Manfred E., <u>Burger's Medicinal Chemistry and Drug</u>

 <u>Discovery</u>, 5th ed., <u>Volume I: Principles and Practice</u>, John

 Wiley & Sons, 1995, pages 975-977;
- 100. Woods, C. L. and Blazynski, C. (1991) "Characterization of Adenosine A₁-receptor Binding Sites in Bovine Retinal Membranes", Experimental Eye Research, 53: 325-331;
- 101. Zhao, Z. et al., "Bioactivation of 6,7-Dimethyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidine (U-89843) to Reactive Intermediates that Bind Covalently to Macromolecules and Produce Genotoxicity" Chem. Res. Toxicol., (1996) 9: 1230-1239;
- 102. U.S. Patent Application Publication No. US-2002-0028782-A1,
 published March 7, 2002, Castelhano et al. (Exhibit 3 claims only);
- 103. U.S. Patent Application Publication No. US-2002-0058667-A1, published May 16, 2002, Castelhano et al. (Exhibit 4 claims only);
- 104. U.S. Patent Application Publication No. US-2003-0036545-A1,

Serial No.: Not Yet Known

Filed : Herewith

Page 27

published February 20, 2003, Castelhano et al. (Exhibit 5 - claims only);

- 105. U.S. Patent Application Publication No. US-2002-0094974-A1, published July 18, 2002, Castelhano et al. (Exhibit 6 claims only);
- 106. U.S. Patent Application Publication No. US-2003-0073708-A1, published April 17, 2003, Castelhano et al. (Exhibit 7 claims only);
- 107. U.S. Patent Application Serial No. 09/454,074, filed December 2, 1999, Castelhano et al. (Exhibit 8 claims only);
- 108. U.S. Patent Application Serial No. 09/454,075, filed December 2, 1999, Castelhano et al. (Exhibit 9 claims only);
- 109. U.S. Patent Application Serial No. 10/010,092, filed November 30, 2001, Castelhano et al.; and
- 110. U.S. Patent Application Publication No. US-2003-0045536-A1, published March 6, 2003, Castelhano et al. (Exhibit 10 claims only).

Applicants request that the Examiner review the references and make them of record in the subject application.

Serial No.: Not Yet Known

Filed : Herewith

Page 28

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

No fee is deemed necessary in connection with the filing of this Preliminary Amendment and Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

John P. White

Registration No. 28,678

Gary J. Gershik

Registration No. 39,992

Attorneys for Applicants

Cooper & Dunham LLP

1185 Avenue of the Americas

New York, New York 10036

(212) 278-0400



Form PTO-1449



U.S. Department of Commerce

Atty. Docket No. 60390-IB/JPW/GJG/JBC

Serial No. Not Yet Known

					Pat	60390-IB/JPW/GJG/JBC Not Yet Known								
							Applicants: Arlindo Castelhano et al.							
	-	IN	FO.				DI al s	Filing Date Herewith	Group					
									U.S. PA	TENT DOCUMENTS				
Examiner nitial		Doc	cume	nt N	umb	er			Date Name	Class	Subclass	Filing Date if Appropriate		
<u> </u>		3	0	3	7	9	8	0	6/5/62	Hitchings, G.H. et al.;		_	1	
		3	9	1	0	9	1	3	10/7/75	Kim, et al.;			1	
		5	2	0	8	2	4	0	5/4/93	Peet, et al.;	~		 	
		5	4	0	9	9	3	0	4/25/95	Spada, A.P. et al.;				
		5	5	1	6	8	9	4	5/14/96	Reppert, S.M.;				
		5	5	8	0	8	7_	0_	12/3/96	Barker, A.J. et al.;				
		5	6	3	9	9	1	3	6/17/97	Lidor et al.;				
		5	6	4	6	1	5_	6	7/8/97	Jacobson et al.;				
		5	6	8	1	9	4	1	10/28/97	Cook, P.D. et al.;				
		5	7	1	0	1	5_	8_	1/20/98	Myers, M.R. et al.;				
		5	7	1	4_	4	9	3	2/3/98	Myers, M.R. et al.;				
		5	7	2	1	2	3	7	2/24/98	Myers, M.R. et al.;				
		5	7	4	7	4	9	8	5/5/98	Schnur, R.C. et al.;				
		5_	7	8	0	4	5	0	7/14/98	Shade, D.L. et al.;	_			
		5	7	8	0	4	8	1	7/14/98	Jacobson et al.;			_	
		5	8	3	4	6	0	9_	11/10/98	Horne, D.A. et al.;	_			
		5	8	7	7	2	1	8	3/2/99	Herzig et al.;	ļ			
	-	5	8	7	7_	2	2	1	3/2/99	Cohen et al.;				
	-	5	8	8	0	1	5	9_	3/9/99	Herzig et al.;				
		5	9	1	4	3	4	9	6/22/99	Cohen et al.;				
		5	9	6	2	4	5	8	10/5/99	Lohmann et al.;				
	-	5	9	9	4	4	0	8	11/30/99	Cohen et al.;		_ 		
	Д	6	1_	0	3	8	9	9	8/15/00	Horne, D.A. et al.	<u>.</u>			
		,							FOREIGN	PATENT DOCUMENT	rs			
		Do	cun	nen	t Nu	mb	er		Date	Country	Class	Subclass	Transla	ation
													Yes	N
	wo	9	3	2	0	0	7	8	10/14/93	PCT;				
	wo	9	4	l	3	6	7	6	6/23/94	PCT;				
	wo	9	4	1	7	0	9	0	8/4/94	PCT;				
			0	ТН	ER	DO	CU.	ME	NTS (Inclu	ding Author, Title, Date	Pertinent !	Pages, Etc.)		
$\neg \neg$		Ī												
EXAMINE	R	-							DATE CONS	SIDERED				

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Page 2 of 6 Serial No. Form PTO-1449 Atty. Docket No. **U.S. Department of Commerce** 60390-IB/JPW/GJG/JBC Not Yet Known **Patent and Trademark Office** Applicants: Arlindo Castelhano et al. INFORMATION DISCLOSURE CITATION Filing Date Group (Use several sheets if necessary) Herewith U.S. PATENT DOCUMENTS Date Class Filing Date Document Number Subclass Examiner Name if Appropriate Initial FOREIGN PATENT DOCUMENTS WO 9/1/94 PCT; wo 6 10/27/94 PCT; wo 5/4/95 PCT; 5 8 6 WO 9 5 7/13/95 PCT; 8 PCT; WO 9 7/27/95 WO 9 7/27/95 PCT; 0 8/3/95 WO 9 PCT; 0 9 PCT; WO 9 4 6/27/96 6 9 8 WO 9 7 0 6 1/23/97 PCT; 6 wo 7 8 2/13/97 PCT; 7 9 9/18/97 PCT; WO 9 13 8 WO |9 6 2/26/98 PCT; WO 2 3/5/98 PCT; 8 Ю 8 8 wo 9 5/28/98 PCT; 8 6 wo 9 7/9/98 18 2 19 3 9 PCT; WO 9 8 5 7 6 12/23/98 PCT; WO 9 2/11/99 PCT; Ю 6 0 3 WO 9 9 7/8/99 PCT; 13 WO 9 2 8/26/99 PCT; 4 3 WO 9 8 12/9/99 PCT; 6 WO 0 6/7/01 PCT (Exhibit 1); lg. WO 02 0 5 7/25/02 PCT; WO 03 0 4 0 6/12/03 PCT (Exhibit 2); EPO; EP n 6/28/89 4 EPO; ΕP 4 0 11/25/92 EP 6 8 0 11/15/95 EPO; EP Ю 7 2 8 9/4/96 EPO; EP lo-3 5/14/97 EPO; OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE CONSIDERED

EXAMINER

Form PTO-1449 U.S. Departmen									nt of Comme	rce	Atty. Doc	Serial No.			
					Pat	ent	and	Tra	demark Off	ice	60390-IB/,	Not Yet	Known		
			INE	OD N	f A T	ION	DI	SCI	OSURE CI	TATION	Applicants: Arlindo Castelhano et				
			1111.						s if necessar		Filing Date Herewith	Group			
									U.S. PA	TENT DOCUMENTS					
Examiner Initial		ļ	Docur	ment N	lumb	er			Date	Name	Class	Class Subclass			
	Ť					T	Π								
			_		+-	╁	T								
	+	\dashv	\dashv	\top					 						
						٠	1		EODEIGN	DA TENTE DO CUE SENS			<u> </u>		
	Т									PATENT DOCUMENT					
	į		Docı	ımen	t Number				Date Country		Class	Subclass	Translation Yes No		
	G	В	0 9	1	5	3	0	3	1/9/63	Great Britain;	1		 		
	р	E :	3 1	4	5	2	8	7	5/19/93	Germany;			+		
	11	$\overline{}$	0 1	${-}$	7	2	8	0	2/22/86	India;					
	J]	Р (09 2	9	1	0	8	9	5/11/999	Japan;					
				OTE	IER	DO	CUI	ME	NTS (Includ	ing Author, Title, Date	Pertinent l	Pages, Etc.)			
										Adenosine Receptors		gets for Therape	utic Inte	rvention	
		ļi	in N	euro	dege	enera	ative	e .	Diseases",	Ann. NY. Acad. Sci, 8	90: 79-92;				
			Banl	ker, (G.S.	et a	l., <u>N</u>	/lod	ern Pharmac	ceutics, 3 rd ed., Marcel	Dekker, N	ew York, 1996	page 59	96;	
			Barr	ett, F	₹.J. ((199	6) "	Rea	alizing the P	otential of Adenosine-	Receptor-B	ased Therapeut	ics" <u>Pro</u>	c. West	
				mace								·			
										vely antagonizes aden	osine A1 r	eceptors in viv	o" <u>Euro</u>	pean J	
									6: 9-16;						
										A1 and A3 receptors me	ediate inhib	ition of synapti	c transmi	ission ii	
										ology, 40: 85-95;	- 1- FO 3	47	.:41- A 4:	:	
										of Novel 2,4-Diaminop ctivity" J. Med. Chem.			/Ith Anu	oxidani	
										A ₁ -Adenosine Recep			d Heine	y Veas	
										al Assays" Bioorg. & N					
										ral Efficacy of a 4-(But					
		(Cent		Ac	tive				asing Factor ₁ Receptor					
							ıl'	'An	tagonism of	the Cardiodepressant E	Effects of Ac	lenosine during	Acute H	vpoxia'	
										00), 7(8): 618-624;					
			DeN	linno	, M	.P. i	n <u>A</u>	nnı	ial Reports	in Medicinal Chemist	ry, Vol. 33	, (Academic Pr	ess: San	Diego	
				3), pp						·		·			
					•					d Purine Analogs as Mo	odulators of	Multidrug Res	istance"	J. Med	
		<u>Chem.</u> (1996) 39: 4099-4108;													
	Dooley, M.J. et al., "Theoretical Structure-Activity Studies of Adenosine A1 Ligands: Requirement Receptor Affinity" <i>Bioorg. Med. Chem.</i> (1996), 4(6): 923-934; Feoktistove, I. et al., (1998) "Adenosine A _{2B} receptors: a novel therapeutic target in asthma?", <u>TiPS</u>										ents fo				
											C'DC 10				
				ctisto ·153;		ı. et	aı.,	(19:	Adenos	sine A_{2B} receptors: a no	vei therape	utic target in ast	nma!, <u>l</u>	<u> 11PS</u> 19	
-		\longrightarrow				1 (· Δ d	eno	sine Al Da	eceptor Antagonist Pr	olongs Sur	vival in the F	Ivnovic	Rat"	
									(2001) 38: 3		ololiga oul	vivai in the I	PONIC		
EXAMIN	ER									DATE CONSIDERI	ED	-			
										n is in conformance with MP xt communication to applicar		line through citation	if not in		

Form PTO-1	1449			ent of Comme		Atty. Doc 60390-IB/	ket No. JPW/GJG/JBC	Serial No. Not Yet Known					
					, T. M. M. C. N.	Applican	Applicants: Arlindo Castelhano et al.						
				LOSURE CIT		Filing Date Herewith		Group					
				U.S. PA	TENT DOCUMENTS								
Examiner Initial	Document	Number		Date	Name	Class	Subclass		Filing Date if Appropriate				
	·····			FOREIGN I	PATENT DOCUMEN	NTS							
	Docume	nt Num	ber	Date	Country	Class	Subclass	Transl	ation				
						l		Yes No					
							†						
			1. 1				 						
	то	HER D	OCUMI	ENTS (Includi	ing Author, Title, Dat	e. Pertinent	Pages, Etc.)						
					Short Course, (Hou			l;					
					tive Aspects of the R				ists and				
	Antagoi	nists" <u>J.</u>	Med. C	hem., 26: 83	8-844;	_							
	Jacobso	n K.A.,	et al., (1998) "Adend	osine A3 receptors: n	ovel ligands	and paradoxica	l effects'	", <u>TiPS</u>				
	19:184-												
	Jacobson K.A., et al., (1997) "Pharmacological Characterization of Novel A3 Ade												
 					acology, 36 (9): 1157			nica Ann Cham					
	Pages 1			so) "Syntnesi	s of /H-Pyrrolo(2,3-0	ı jpyrımıdın-2	nidin-4-amines" <u>Liebigs, Ann. Chem.</u> s potential therapeutic targets" <u>Drug</u>						
				Ouinn (1996	9) "Adenosine recen	tors as note							
				: 542-551;) ridenosine recep	tors us pote							
					sis of pyrazinecarboxylic acid derivs (II) derivs. of 3								
						Zasshi 81: 1650-1653;							
					cts of renal ischemic								
		A1 and A	A3 recep	otors", 72 nd Scientific Sessions of the American Heart Association, Atlanta, GA									
 		p.197; Lee T., et al., (2000) "Protective effects of renal ischemic preconditioning and adenosine pretreatment											
		ne pretre	eatment										
 	role of A1 and A3 receptors", Am. J. Physiol. Renal Physiol., 278: F380-F387;												
Marx, D. et al. (2001) "Therapy of Bronchial Asthma with Adenosine Recep Antagonists" <u>Drug News Perspect.</u> 14(2): 89-100;									ilists O				
 	Mautne	Cross-linking	Agents, 8,8'-Bis	spurines"	, J. Org								
	Mautner, H.G., (1961) "Potential Deoxyribonucleic Acid Cross-linking Agents. 8,8'-Bispurines", <u>J. Org Chem.</u> 26(6):1914-1917;												
	Muller, C. E. et al. (1990) "7-Deaza-2-phenyladenines: Structure-Activity Relationships of Potent A												
	Selectiv	e Aden	osine R	eceptor Antag	gonists" J. Med. Cher	m., 33: 2822	-2828;						
EXAMINER		·		DATE CONSI	IDERED	 							
					n is in conformance with M xt communication to applic		line through citation	n if not in					

								<u>-</u>	T		Serial			
Form PTO-	1449						nt of Comme ademark Off			Atty. Docket No. 60390-IB/JPW/GJG/JBC				
	TAT	EΛΙ	D N #	4 TTA	AT EXE	ec.	OCUPE CU	TATION!	Applican	ts: Arlindo Cast	elhano e	t al.		
		r UI					LOSURE CI'		Filing Date Herewith	Group				
							U.S. PA	TENT DOCUMENTS	 S					
Examiner	Doc	umer	nt Nı	ımber			Date	Class	Subclass	Filing D	ate			
Initial		,					Date Name				if Appro			
			<u> </u>			<u> </u>	<u></u>							
							FOREIGN	PATENT DOCUME	NTS					
	Do	cum	ent	Numl	oer		Date	Country	Class	Subclass	Transl	Translation		
								·			Yes	No		
-		Ī		ПТ	Т	T					1			
		\vdash	\vdash	\vdash	+	+					+ -			
L			L_			ME	NIEC (II I	ing Author, Title, Da	4- Do-4io-4	Donne Etal	•.	·		
	Str J. 1	uctu <u>Med</u>	ire- . Cl	Activ	ity R 39: 2	elat 248:	ionships of P 2-2491;	Pyrrolo[2,3-d]pyrimic otent, Highly Stereos	elective A ₁ -A	denosine Recep	tor Anta	gonists'		
	Th	Muller, C. E. and Stein, B. (1996) "Adenosine Receptor Antagonists: Structures and Potent Therapeutic Applications", <u>Current Pharmaceutical Design</u> , 2: 501-530;												
								Receptor Antagonist						
	pro 439	par; 96-4	gyl) 1403	kanthi 5;	ne D	eriv	vatives, A _{2A} -	thesis and Structure Selective Adenosine	Receptor A	ntagonists", <u>J. N</u>	Med. Ch	em., 40		
	Va	soco	onst	rictio	n" <i>J</i> .	Ph	arm. Exp. Tl	Receptor Antagonist her. (1999), 291: 988	3-993;					
	Nyce, J. W. and Metzger, J.W., (1997) "DNA antisense therapy for asthma in an animal model 385: 721-725; Pichler, H. et al. "Synthese von 7-unsubstituierten 7H-Pyrrolo[2,3-d] pyrimidinen", (1986) Lie Chemie., 9: 1485-1505;													
	dei	m C	hro	moph	or de	s R	ibonucleosic	Reaktion am 2-Amino ls "Q" (1977) <u>Chem</u>	Ber. 110: 14		pyrimid	in-4-on		
								al Sci., (1997) 86:76						
								K ⁺ current in huma			exogen	ous and		
ļ								. Cell Physiol. (2001			1 T			
	Venugopalan, B. et al. (1998) "Synthesis of 6,7-Dimethoxypyrimido[4,5-b]-indoles as Poter Antihypertensive Agents" J. Heterocyclic Chem., 25: 1633-1639;										otentia			
								ptor antagonists in flu		disorders" Eyne	rt Onin	Investio		
							553-1562;	ptor antagomsts in m	nd retaining t	ilsolucis <u>Lxpc</u>	it Opin.	uivesug		
								Alkyl(aryl)-and 2,7-	Dimethyl-4-	substituted An	ninopyrr	olo[2,3		
							Chem., 26: 3							
EXAMINER	J						DATE CONS	IDERED						
					,			n is in conformance with Mext communication to applic		line through citation	if not in	-		



Form PTO-1449 Atty. Docket No. Serial No. **U.S. Department of Commerce** 60390-IB/JPW/GJG/JBC Not Yet Known **Patent and Trademark Office** Applicants: Arlindo Castelhano et al. INFORMATION DISCLOSURE CITATION Group Filing Date (Use several sheets if necessary) Herewith **U.S. PATENT DOCUMENTS** Class Subclass Filing Date Examiner Document Number Date Name if Appropriate Initial 3/7/02 20 02 00 28 Castelhano et al. (Exhibit 3, claims only): 5/16/02 Castelhano et al. 20 02 00 58 (Exhibit 4, claims only); 2/20/03 20 03 00 36 Castelhano et al. (Exhibit 5, claims only); 4/17/03 |02 |00 |94 Castelhano et al. (Exhibit 6, claims only); 4/17/03 Castelhano et al. 03 00 73 (Exhibit 7, claims only); 09 12/2/99 Castelhano et al. (Exhibit 8, claims only); 12/2/99 Castelhano et al. (Exhibit 9, claims only); 11/30/01 Castelhano et al.; 10 3/6/03 Castelhano et al. 20 |03 |00 |45 6 (Exhibit 10, claims only); FOREIGN PATENT DOCUMENTS Translation Document Number Country Class Subclass Date Yes No OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Williams, E. F. et al., "Nucleoside transport sites in a cultured human retinal cell line established by SV-40 T antigen gene", (1994) <u>Current Eye Research</u>, 13: 109-118; Wolff, Manfred E., Burger's Medicinal Chemistry and Drug Discovery, 5th ed., Volume I: Principles and Practice, John Wiley & Sons, 1995, pages 975-977; Woods, C. L. and Blazynski, C. (1991) "Characterization of Adenosine A₁-receptor Binding Sites in Bovine Retinal Membranes", Experimental Eye Research, 53: 325-331; and Zhao, Z. et al., "Bioactivation of 6,7-Dimethyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidine (U-89843) to Reactive Intermediates that Bind Covalently to Macromolecules and Produce Genotoxicity' Chem. Res. Toxicol., (1996) 9: 1230-1239.

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE CONSIDERED

EXAMINER